

INGLEWOOD TRANSIT CONNECTOR

Environmental Commitment Record



Prepared for:
CITY OF INGLEWOOD
One West Manchester Boulevard
Inglewood, California 90301

Prepared by:
TERRY A. HAYES ASSOCIATES INC.
3535 Hayden Avenue, Suite 350
Culver City, CA 90232

May 2022

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
Transportation and Traffic	<p>TRANS-1 Transit Access and Circulation Program: The Project Task Force (as identified in the Construction Commitment Program) shall be responsible for the following:</p> <ul style="list-style-type: none"> • Ensure that access to bus transit stops and bus circulation are always maintained, unless infeasible and closure is approved by the City. • Coordinate with the LACMTA and any other transit service providers to: <ul style="list-style-type: none"> ○ Relocate bus stop(s) if necessary, during construction with appropriate wayfinding signage and information dissemination, with all temporarily relocated bus stops located as close as feasible to the original bus stop location. ○ Reroute transit bus lines if necessary, during construction with appropriate wayfinding signage and information dissemination. 	Pre-Construction and During Construction	Project Task Force, Contractor	Prepare and Implement a Transit Access and Circulation Program
Transportation and Traffic	<p>TRANS-2 Construction Staging and Traffic Control Program: A Construction Staging and Traffic Control Program shall be developed by members of the Project Task Force (as defined in the Construction Commitment Program), subject to review and acceptance by the City and/or the JPA, and shall address the following topics:</p> <ul style="list-style-type: none"> • Coordination with other public infrastructure projects within the City's boundaries. • Coordination with major private development projects that may be constructed concurrently with the proposed Project, including HPSP and IBEC. • Detour routes, including analysis of impacts to pedestrian, business, bicycle, and traffic flow. • Coordination of closures and restricted access during the construction period with special attention during periods of expected heavy traffic from events scheduled at SoFi Stadium and other venues in the Los Angeles Sports and Entertainment District at Hollywood Park, The Forum, and the Inglewood Basketball and Entertainment Center. • Coordination with the City, police, and fire services department regarding maintenance of emergency access and response times. • Monitoring and coordination of construction materials deliveries. • Notification to businesses and residents on upcoming construction activities including but not limited to the establishment of a website with project construction information, signage, and web-based media. <p>The Traffic Control Program shall be developed as needed based on the following principles:</p> <ul style="list-style-type: none"> • Minimize traffic impacts on residential streets. • Establish minimum traffic lane requirements for Manchester Boulevard, Florence Avenue, and Prairie Avenue during construction such that at least the full number of traffic lanes in the peak direction, and if feasible, one traffic lane in the off-peak direction is available, with additional capacity provided through appropriate detour routes. The directional traffic lanes may be reversible to maintain the peak directional capacity in either direction as necessitated by traffic demands. For all other streets potentially affected by construction, maintain at least one lane of traffic in each direction unless otherwise approved by the City. • Maintain access to and from all alleys at one or both ends of the alley when possible. If an alley is obstructed such that a turnaround by any vehicle is not feasible, traffic flaggers shall be provided to control access to/from the alley. • Maintain access for all public safety vehicles (such as police, fire, and emergency response). • Maintain bicycle and pedestrian access within the Project area or approved detours at all times. • Provide adequate street access to City service vehicles, including but not limited to trash pickup and street sweeping service vehicles, during planned service times. • Sidewalk closures shall be avoided to the degree feasible and are permitted only when approved by the City. Accessible detours shall be provided if sidewalk closures are necessary. 	Pre-Construction and During Construction	Project Task Force, Contractor	Prepare and Implement a Construction Staging and Traffic Control Program

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> • Use traffic control officers/flaggers as appropriate to minimize the degree and duration of impacts and maintain safety. • Establish and maintain wayfinding signage. • Maintain vehicular and pedestrian access to all businesses and residents impacted by construction activities including roadway closures. • Hold quarterly community outreach meetings with businesses and residents to provide updates on temporary, full, or partial street closures necessary for construction. Website will be updated 45 to 60 days prior to planned dates of any street closures. • All closures, full or partial, are subject to City review and approval which shall consider measures to minimize the degree and duration of street and lane closures. • Entry and exit to the Market Street/Florence Avenue construction site shall be limited to right turns to/from Florence Avenue for large trucks, construction equipment, and material deliveries. An entrance off Locust Street between Florence Avenue and Regent Street will also be required to serve the contractor's offices and staging area. If required for phasing, the Locust Street entrance may also be used for large trucks, construction equipment, and material deliveries as approved by the City. 			
<p>Transportation and Traffic</p>	<p>TRANS-3 Parking Management Plan: A Parking Management Plan (as defined in the Construction Commitment Program) shall be developed by members of the Project Task Force, subject to review and acceptance by the City and/or the JPA, and shall adhere to the following principles:</p> <ul style="list-style-type: none"> • Parking, staging, or queuing of Project-related vehicles, including workers' personal or project-assigned vehicles, trucks, and heavy vehicles, shall be prohibited on City streets at all times, outside of a permitted workspace unless otherwise approved by the City. If the use of residential permit parking spots is necessary for construction, provide for equivalent overnight replacement parking for removed residential permit parking spots at the nearest possible location to the location where parking has been removed. • Replace loss of metered parking spaces by making available an equivalent number of parking spaces in an off-street parking facility located near the lost parking. The parking spaces shall be provided for public use at a rate no greater than the metered parking rate. • Provide public notice of the availability of the alternative parking spaces through outreach to businesses and residents with signage. 	<p>Pre-Construction and During Construction</p>	<p>Project Task Force, Contractor</p>	<p>Prepare and Implement a Parking Management Plan</p>
<p>Transportation and Traffic</p>	<p>TRANS-4 Pedestrian Access Program: A Pedestrian Access Program shall be developed by members of the Project Task Force, subject to review and acceptance by the City and/or the JPA, and shall adhere to the following principles:</p> <ul style="list-style-type: none"> • Pedestrian access to buildings shall be maintained at all times. Maintain all crosswalks to the extent feasible. Whenever a crosswalk is removed from service, establish and maintain temporary accessible replacement crosswalks as close as practicable to the original crosswalk locations unless the City determines that a replacement crosswalk is not necessary to maintain an adequate level of service. Replacement crosswalks shall be identified and controlled by wayfinding signs approved by the City. • Establish and maintain passenger wayfinding signage. • Maintain sidewalk access for pedestrians, including providing temporary sidewalks if existing sidewalks are disrupted during construction. Any sidewalk closures are subject to review and approval by the City. • Sidewalks that are being maintained in a temporary condition shall meet all applicable safety standards, including but not limited to the requirements of the Americans with Disabilities Act and similar California laws. 	<p>Pre-Construction and During Construction</p>	<p>Project Task Force, Contractor</p>	<p>Prepare and Implement a Pedestrian Access Program</p>

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> Protect pedestrians from construction-related debris, dust, and noise; such protection may include the use of dedicated pedestrian barriers. Coordinate with the IUSD and the City to provide crossing guards at locations requested by IUSD or the City when crosswalks or sidewalks are closed. Identify temporary alternate routes to school, working closely with IUSD and the City, and disseminate this information to schools and stakeholders affected by construction. 			
Aesthetics and Visual Quality	<p>VIS-1 Tree Replacement: A Tree Removal and Replacement Plan shall be developed by members of the Project Task Force, subject to review and acceptance by the City and/or the JPA, and shall adhere to the following principles:</p> <ul style="list-style-type: none"> Tree removal and replacement shall comply with the City of Inglewood Municipal Code and the Design Standards and Guidelines. Removal of existing healthy and flourishing trees shall be avoided where feasible. New permanent replacement trees shall be a 36-inch box of the same species as those removed, if appropriate for the location and not in conflict with new infrastructure. Alternative locations shall be approved by the City's Public Works Department. New permanent replacement palm trees shall be a minimum of 20 feet in height. The Contractor shall permanently replace trees within six (6) months of restoration and completion of that portion of streets that may impact the tree. To the extent feasible, the Contractor shall permanently replace trees on an ongoing basis so long as doing so does not conflict with future construction. If construction of the project requires pruning of native tree species, the pruning shall be performed in a manner that does not cause permanent damage or adversely affect the health of the trees. The Contractor shall maintain all permanent trees and other landscaping installed by the Contractor for a period of three (3) years from the date of planting and shall warranty the trees and landscaping for one (1) year after planting. Prior to the end of the one-year warranty period, the City and the Contractor shall conduct an inspection of all permanent replacement trees and landscaping for general health as a condition of final acceptance by the City. If, in the City's determination, a permanent replacement tree or landscaping does not meet the health requirements of the City, then the Contractor shall replace that tree within thirty (30) days. For any permanent trees or landscaping that must then be removed, the original warranty shall be deemed renewed commencing from when the tree or landscaping is replaced. 	Pre-Construction and During Construction	Project Task Force, Contractor	Prepare and Implement a Tree Removal and Replacement Plan
Aesthetics and Visual Quality	<p>VIS-2 Lighting</p> <p><i>Station Design</i></p> <ul style="list-style-type: none"> Station canopies shall have indirect accent lighting. Lighting shall clearly highlight pedestrian paths including those to stairs, escalators, and elevators. Accent and functional lighting shall be strategically placed to minimize spillover. Accent and functional lighting controls shall be programmable, and sensor controlled to allow for energy efficiency and various settings such as daytime, nighttime, and event lighting. <p><i>Guideway and Support Structure Design</i></p> <ul style="list-style-type: none"> Where provided, guideway indirect accent lighting shall complement station lighting design. Light fixtures shall be concealed or minimally visible. Accent and functional lighting shall be strategically placed to minimize spillover. Code required lighting along the guideway shall be designed to minimize visibility from the ground level. 	Final Design	Project Task Force, Contractor	Follow Design Guidelines

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> • Street lighting shall be supplemented as needed to provide a consistent light level on the sidewalk and roadway along the project alignment. <p><i>Maintenance and Storage Facility</i></p> <ul style="list-style-type: none"> • Where provided, functional lighting shall be placed to minimize spillover. • Building entrances shall be well lit. • Lighting shall clearly highlight pedestrian paths including those to ramps, stairs, escalators, and elevators. • Public uses on the ground plane of the MSF Site including any covered parking areas shall be well lit with particular attention paid to the comfort and safety of the public. <p><i>Elevated Passenger Walkways</i></p> <ul style="list-style-type: none"> • Where provided, functional lighting shall be placed to minimize spillover. • Overall lighting design shall not interfere with roadway traffic below. • Accent lighting shall complement station lighting design. • Accent and general lighting controls shall be programmable and sensor controlled to allow for daytime, nighttime, and event settings. 			
Aesthetics and Visual Quality	<p>VIS-3 Tree Placement</p> <ul style="list-style-type: none"> • An arborist report surveying the condition and extents of all existing trees in the Project area shall be provided to the developer for their use as a baseline in order to produce a final report detailing the most current conditions and proposed handling of all existing trees for the proposed Project. • Existing flourishing trees (as identified in the arborist report) shall remain, where feasible. • An Approved Plant Palette based on the City’s approved street tree list shall be used as a basis for all sections of new trees. • The quantity and species of existing trees removed by the Project shall be replaced in accordance with the City’s current landscape guidelines. • Protected species in the Inglewood Municipal Code, Tree Preservation shall remain. • City of Inglewood guidelines for tree spacing shall be followed, considering species of trees and the desired canopy coverage. • Trees shall be planted on both sides of the roadway where feasible. • Trees shall be positioned at regular intervals relative to the guideway column supports to create a consistent rhythm. • On Market Street, trees shall be planted at a rhythm and scale to create a continuous visual canopy over the pedestrian realm, where feasible. • On Manchester Boulevard, trees shall be planted at a rhythm consistent with the street trees east and west of the Project, in alignment with the shape of the roadway. • On Prairie Avenue, trees on the east side shall continue the stately rhythm from the Inglewood Cemetery north of Manchester Boulevard. Trees on the west side shall be spaced to match the rhythm of the east side and the guideway support structure to the extent feasible. 	Pre-Construction and During Construction	Project Task Force, Contractor	Follow Design Guidelines
Aesthetics and Visual Quality	<p>VIS-4 Signage</p> <ul style="list-style-type: none"> • Physical Non-Digital Signage incorporated into the Project shall have a distinct visual graphic identity that is consistent across all physical design elements of the project. • All signage shall be approved by City of Inglewood and the Authority Having Jurisdiction (AHJ). • Existing signage along the entire alignment, which is affected, shall be replaced along with its infrastructure, and shall meet its originally intended design intent and function. 	Pre-Construction and During Construction	Project Task Force, Contractor	Follow Design Guidelines

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> Signage replaced that originated on private property shall be approved by the City of Inglewood and the sign/property owner. 			
Aesthetics and Visual Quality	<p>VIS-5 Visual Obstruction. The final Project design shall ensure safe vehicle access to driveways and streets by maintaining adequate sight distances in accordance with City of Inglewood traffic ordinances, and State and National design standards. Final design of straddle bent support columns shall establish minimum distances from residences and residential driveways to ensure adequate sight distances based on posted speed limits in conformance with the above design standards). Prior to construction the final design and site plan shall be submitted to the City of Inglewood Public Works Department for final review and approval. If adequate sight distances cannot be achieved, alternative safety measures such as warning signals, signage, speed feedback signage, or speed bumps shall be incorporated into the design.</p>	Final Design	Project Task Force, Contractor	Follow Design Guidelines
Aesthetics and Visual Quality	<p>VIS-6 Construction activities during evening and nighttime hours may require the use of temporary lighting. To minimize the impact of temporary lighting on adjacent properties, the following measures shall be implemented:</p> <ul style="list-style-type: none"> Temporary lighting shall be limited to the amount necessary to safely perform the required work and shall be directed downwards and shielded. Care shall be taken in the placement and orientation of portable lighting fixtures to avoid directing lights toward sensitive receptors, including automobile drivers. Motorists and sensitive receptors shall not have direct views of construction light sources. Light sensitive receptors include but are not limited to residential areas and transient occupancy uses. Light trespass shall not exceed one foot-candle above ambient light level as measured at any adjacent residential and transient properties. Construction night lighting shall be shielded to prevent a direct view of the light sources from residential properties with a property boundary that is within 150 feet of the construction site. Temporary sidewalks and any sidewalk adjacent to construction activities shall be illuminated to City Standards to protect public safety. To minimize the visual effects of construction the following measures shall be implemented: <ul style="list-style-type: none"> Visually obtrusive erosion control devices, such as silt fences, plastic ground cover, and straw bales should be removed as soon as the area is stabilized. Stockpile areas should be located in less visibly sensitive areas and pre-approved by the City. Stockpile locations, laydown, and staging areas shall be accessed by construction vehicles with minimal disruption near residential neighborhoods. When not in use or being staged, heavy equipment shall be located as far as practicable from residential areas, businesses and pedestrian pathways. 	Pre-Construction and During Construction	Project Task Force, Contractor	Follow Design Guidelines
Air Quality	<p>AQ-1 At a minimum, use equipment that meets the U.S. Environmental Protection Agency (USEPA)'s Final Tier 4 emissions standards for off-road diesel-powered construction equipment with 50 horsepower (hp) or greater, for all phases of construction activity, unless it can be demonstrated to the City Planning Division with substantial evidence that such equipment is not available. To ensure that Final Tier 4 construction equipment or better shall be used during the proposed Project's construction, the City shall include this requirement in applicable bid documents, purchase orders, and contracts. The City shall also require periodic reporting and provision of written construction documents by construction contractor(s) and conduct regular inspections to the maximum extent feasible to ensure and enforce compliance.</p> <ul style="list-style-type: none"> Such equipment will be outfitted with Best Available Control Technology devices including a California Air Resources Board (CARB)-certified Level 3 Diesel Particulate Filters (DPF). Level 3 DPF are capable of achieving at least 85 percent reduction in particulate matter emissions. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Final Tier 4 emissions standards for a similarly sized engine, as defined by the CARB's regulations. Successful contractors must demonstrate the ability to supply 	Pre-Construction and During Construction	Project Task Force, Contractor	Implement Pollution Reduction Measures

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<p>the compliant construction equipment for use prior to any ground disturbing and construction activities. The proposed Project representative will make available to the lead agency and Southern California Air Quality Management District (SCAQMD) a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, which will be used during construction. The inventory will include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each unit's certified tier specification, best available control technology (BACT) documentation, and CARB or SCAQMD operating permit shall be maintained on site at the time of mobilization for each applicable piece of construction equipment.</p> <ul style="list-style-type: none"> • If any of the following circumstances listed below exist and the Contractor provides written documentation consistent with project contract requirements, the Contractor shall submit an Alternative Compliance Plan that identifies operational changes or other strategies that can reduce a comparable level of NOx emissions as Tier 4-certified engines during construction activities. • The Contractor does not have the required type of off-road construction equipment within its current available inventory as to a particular vehicle or equipment by leasing or short-term rent, and the Contractor has attempted in good faith and with due diligence to lease or short-term rent the equipment or vehicle, but the equipment or vehicle is not available for lease or short-term rent within 120 miles of the Project area, and the Contractor has submitted documentation to the City showing that the requirements of this exception provision apply. • The Contractor has been awarded funding by SCAQMD or another agency that would provide some or all of the cost to retrofit, repower, or purchase a piece of equipment or vehicle, but the funding has not yet been provided due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and with due diligence to lease or short-term rent the equipment or vehicle that would comply, but the equipment or vehicle is not available for lease or short-term rent within 120 miles of the Project area, and the Contractor has submitted documentation to the City showing that the requirements of this exception provision apply. • Contractor has ordered equipment or vehicle to be used on the construction project in compliance at least 60 days before that equipment or vehicle is needed at the Project alignment, but that equipment or vehicle has not yet arrived due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and with due diligence to lease or short-term rent the equipment or vehicle that would comply, but the equipment or vehicle is not available for lease or short-term rent within 120 miles of the Project area, and the Contractor has submitted documentation to the City showing that the requirements of this exception provision apply. • Construction-related diesel equipment or vehicle will be used on the Project for fewer than 20 calendar days per calendar year. The Contractor shall not consecutively use different equipment or vehicles that perform the same or a substantially similar function in an attempt to use this exception to circumvent the intent of this measure. • Documentation of good faith efforts and due diligence regarding the previous exceptions shall include written record(s) of inquiries (i.e., phone logs) to at least three leasing/rental companies that provide construction on-road trucks and off-road equipment, documenting the availability/unavailability of the required types of truck/equipment. The City will, from time-to-time, conduct independent audit of the availability of such vehicles and equipment for lease/rent within a 120-mile radius of the Project area, which may be used in reviewing the acceptability of the Contractor's good faith efforts and due diligence. • Equipment such as concrete/industrial saws, pumps, aerial lifts, light stands, air compressors, and forklifts shall be electric or alternative-fueled (i.e., nondiesel). Pole power shall be utilized to the maximum extent feasible in lieu of generators. If stationary construction equipment, such as diesel-powered generators, must be operated continuously, such equipment must be Final Tier 4 			

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<p>construction equipment or better and located at least 100 feet from air quality sensitive land uses (e.g., residences, schools, childcare centers, hospitals, parks, or similar uses), whenever possible.</p> <ul style="list-style-type: none"> • At a minimum, require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year trucks (e.g., material delivery trucks and soil import/export with a gross vehicle weight rating of at least 14,001 pounds), or best commercially available equipment, that meet CARB's 2010 engine emissions standards at 0.01 g/hp-hour of particulate matter and 0.20 g/hp-hour of NOx emissions or newer, cleaner trucks, unless the Contractor provides written documentation consistent with project contract requirements the circumstances exist as described above and the Contractor submits the Plan. Operators shall maintain records of all trucks associated with Project construction to document that each truck used meets these emission standards. The City shall include this requirement in applicable bid documents, purchase orders, and contracts. Operators shall maintain records of all trucks associated with Project construction to document that each truck used meets these emission standards and make the records available for inspection. • Require the use of electric or alternatively fueled (e.g., natural gas) sweepers with high-efficiency particulate air (HEPA) filters. • A publicly visible sign shall be posted with the Community Affairs Liaison's contact information to contact regarding dust complaints. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. • Dust shall be controlled per local ordinances. The Contractor shall be responsible for excessive dust or construction debris that results in impacts to adjacent residences or private vehicles, including taking responsibility for clean-up and addressing complaints brought to the project. • All trucks carrying fill materials, debris, or similar materials shall secure and cover loads to prevent dust or debris while travelling on public right of ways. • All trucks removing materials from the site will be loaded within the site perimeter and will be required to cover loads as deemed necessary for dust control. • Material stockpiles and construction area surfaces shall be covered and/or watered as needed to prevent dust at designated construction areas. • All roadways, driveways, sidewalks, etc., being installed as part of the Project should be completed as soon as practicable; in addition, building pads should be laid as soon as practicable after grading. • To the extent feasible, allow construction employees to commute during off-peak hours. • Make access available for on-site lunch trucks during construction, as feasible, to minimize off-site construction employee vehicle trips. • Every effort shall be made to utilize grid-based electric power at any construction site, where feasible. 			
Ecosystems and Biological Resources	<p>BIO-1 The City shall require demolition and construction contractors to implement the following measures:</p> <ul style="list-style-type: none"> • Prior to initiating any demolition and/or construction activities, a nesting bird survey shall be conducted to determine the presence of any nesting birds within 500 feet of demolition and/or construction activities. In addition, nesting bird surveys shall be conducted at least every six months until the completion of construction activities, as specified below. <p>Nesting bird survey shall include:</p> <ul style="list-style-type: none"> - Prior to any demolition and/or construction, and at least every six months during and prior to the raptor nesting season until the completion of construction activities, January 1 to September 1, a qualified biologist shall conduct a site survey for active nests 30 days prior to any scheduled clearing, demolition, grading, or construction activities. The survey shall be conducted within all trees, manmade structures, and any other potential raptor nesting habitat. - Prior to any vegetation disturbance between March 1 and September 15, and a least every six months until the completion of construction activities, a qualified biologist shall conduct a survey 	Pre-Construction and During Construction	Project Task Force, Contractor	Complete Nesting Bird Survey and Implement Protection Measures

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<p>for nesting birds in all breeding/nesting habitat within the construction or demolition areas and within 300 feet of all disturbance areas and submit the results of these surveys to the City. The surveys shall be conducted within trees and structures, wherever nesting bird species may be located. Nesting bird surveys shall be conducted no earlier than 30 days prior to the initiation of ground or vegetation disturbance. If no breeding/nesting birds are observed, site preparation, demolition and construction activities may begin. If breeding activities and/or an active bird nest is located, the breeding habitat/nest site shall be fenced by the biological monitor a minimum of 300 feet (500 feet for raptors) in all directions, and this area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and/or the young shall no longer be impacted. If the qualified biologist determines that a narrower buffer between the demolition and/or construction activities and the observed active nests is warranted, the biologist may submit a written explanation as to why (e.g., species-specific information; ambient conditions and bird's habituation to them; terrain, vegetation, and birds' lines of sight between the demolition and/or construction activities and the nest and foraging areas) to the City and, upon request, the California Department of Fish and Wildlife (CDFW). Based on the submitted information, the City, acting as the lead agency (and CDFW, if CDFW requests) shall determine whether to allow a narrower buffer.</p> <ul style="list-style-type: none"> - During the year prior to demolition and/or construction, a survey shall be conducted by a qualified biologist for bat habitat areas within the construction footprint of the proposed Project between March 1 and September 30 and a least every six (6) months until the completion of construction activities. The areas shall be characterized as to their potential for supporting a bat maternal colony or nursery site. The survey shall include all trees and any manmade structures, or other bat habitat areas that could be affected. If bat maternal colony or nursery sites are identified, then these areas shall be avoided by demolition and/or construction during the bat breeding season, from March 1 through September 30. Each tree or structure supporting an active maternity roost shall be inspected a week prior to determine the presence or absence of roosting bats. - The biologist shall submit weekly reports to the FTA and the City's Parks, Recreation and Library Services Director, or designated representative, regarding the results of the nesting bird surveys. 			
<p>Cultural Resources</p>	<p>CUL-1 Historic Resources (Design Guidelines). The final Project design must consider design variables (elevation of guideway, width of guideway, distance of the guideway from the resources, and the dimensions, placement, and spacing of support columns) and resource variables (building's height, scale, number of street-facing facades, width of primary façade, front setback, project elements overhanging the sidewalk, and viewpoints from which the resource can best be discerned in its entirety). The final Project design shall ensure minimal impacts to the setting of historical resources, and little or no visual obstruction of the resource's street-facing façades from the optimal viewpoints. In order to meet these performance-based standards, the following Project Design Features shall be incorporated into the final Project design:</p> <ul style="list-style-type: none"> • The guideway's elevation and distance from the façade of the historical resource will be sufficient for the guideway to visually clear the top of the historical resources' street-facing façade(s) when viewed from the optimal viewpoints. The final Project design is expected to achieve no visual obstruction of any of the identified historical resources from the guideway. • At the former Fox Theatre, and for 100 feet on either side of the resource, the guideway elevation (measured from the ground plane to the underside of the guideway structure) will be a minimum of 52 feet from grade in order to achieve unobstructed views of this resource, including its monumental sign pylon. 	<p>Final Design</p>	<p>Project Task Force, Contractor</p>	<p>Follow Design Guidelines</p>

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> The dimensions, placement, and spacing of the guideway support columns will be such that the obstruction of views of the historical resources' street-facing façade(s) when viewed from the optimal viewpoints will be minimized. For five of the identified historical resources—Holy Faith Episcopal Church, former United Bank of California (now Broadway Federal Bank), former Fox Theatre, Professional Building, and Inglewood Park Cemetery—the final Project design is expected to completely avoid visual obstructions from support columns. For five of the historical resources—the former Bank of Inglewood, former J.C. Penney, Bank of America, the Forum, and Lighthouse McCormick Mortuary Mortuary—views that are completely unobstructed by support columns are not necessary for the resource to convey its significance. A small portion of the resources' primary façades will be intermittently obscured depending on the position of the viewer. However, due to the scale and/or setback of these resources, their primary façades will remain readily discernable. 			
Cultural Resources	<p>TCR-1 Retention of a Tribal Cultural Resources Monitor/Consultant. Prior to the commencement of any ground disturbing activity at the Project alignment, the City shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (US Department of the Interior, 2008) to carry out all mitigation related to cultural resources. In addition, the City shall coordinate with the Gabrieleno Band of Mission Indians-Kizh Nation, the tribe that consulted on this project pursuant to the Section 106 process, to designate a native American Monitor for the Proposed Project. A copy of the executed contract shall be submitted to the City of Inglewood Planning and Building Department prior to the issuance of any permit necessary to commence a ground-disturbing activity. The Native American monitor will only be present on-site during the construction phases that involve ground-disturbing activities. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to, pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the Project area.</p>	Pre-Construction and During Construction	Project Task Force, Contractor	Prepare and Implement a Tree Removal and Replacement Plan
Cultural Resource	<p>TCR-2 Cultural Resources Monitoring and Discovery Plan (CRMDP). Prior to the commencement of any ground-disturbing activities within areas requiring archaeological monitoring, the City shall retain a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR 61) to prepare a CRMDP for designated portions of the Project that are sensitive for archaeological resources. Procedures to follow in the event of an unanticipated discovery would apply to all applicable Project components. The CRMDP would be submitted to the City and FTA for review and approval. The City and FTA's CRMDP review would ensure that appropriate procedures to monitor construction and treat unanticipated discoveries are in place. Review and approval of the CRMDP would occur prior to the commencement of any construction activities subject to the requirements of the CRMDP. The CRMDP should include required qualifications for archaeological monitors and supervising archaeologists and should specify protocols to be followed in relation to archaeological resources. The CRMDP should describe the roles and responsibilities of archaeological and Native American monitors, FTA personnel (as applicable), City personnel (as applicable), and construction personnel. Additionally, the CRMDP should describe specific field procedures to be followed for archaeological monitoring, including field protocol and methods to be followed should there be an archaeological discovery. Evaluation of resources, consultation with Native American tribes and organizations, treatment of cultural remains and artifacts, curation, and reporting requirements should also be described. The CRMDP will also delineate the requirements, procedures, and notification processes in the event human remains are encountered.</p> <p>The CRMDP will delineate the area(s) that require archaeological and Native American monitoring. Mapping of the area(s) should be made available to the City, which would incorporate this information into the respective construction specifications.</p>	Pre-Construction and During Construction	Project Task Force, Contractor	Prepare and Implement a Monitoring and Mitigation Program

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
Cultural Resource	<p>TCR-3 Cultural Resources Sensitivity Training. The qualified archaeologist and Native American Monitor shall conduct construction-worker archaeological resources sensitivity training at the Project kick-off meeting prior to the start of ground disturbing activities (including vegetation removal, pavement removal, etc.) and will present the Monitoring and Mitigation Program as outlined in TCR-2, for all construction personnel conducting, supervising, or associated with demolition and ground disturbance, including utility work, for the Project. In the event construction crews are phased or rotated, additional training shall be conducted for new construction personnel working on ground-disturbing activities. Construction personnel shall be informed of the types of prehistoric and historic archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. Documentation shall be retained by the qualified archaeologist demonstrating that the appropriate construction personnel attended the training.</p>	Pre-Construction and During Construction	Project Task Force, Contractor	Implement Cultural Resources Sensitivity Training
Cultural Resource	<p>TCR-4 Archaeological and Native American Monitoring. The qualified archaeologist(s) who meets the Secretary of the Interior’s Professional Qualifications Standards, as promulgated in 36 CFR 61, shall supervise archaeological monitoring of all proposed ground-disturbing activities for the proposed Project in the archaeologically sensitive portion(s) of the APE. Monitoring actions and procedures would be completed per the CRMDP described in TCR-2. In addition, the Native American monitor shall be present in those areas designated for archaeological monitoring. Native American monitoring would occur on an as-needed basis and is intended to ensure that Native American concerns are considered during the construction process. Native American monitors shall be retained from tribes who have expressed an interest in the Project and have participated in discussions with FTA. If a tribe has been notified of scheduled construction work and does not respond, or if a Native American monitor is not available, work may continue without the Native American monitor. Roles and responsibilities of the Native American monitors would be detailed in the CRMDP described above. Costs associated with Native American monitoring shall be borne by the City.</p>	Pre-Construction and During Construction	Project Task Force, Contractor	Implement Archaeological and Native American Monitoring
Cultural Resource	<p>TCR-5 Inadvertent Discoveries Related to Human Remains. In the event of discovery of human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. The City will contact the Los Angeles County Medical Examiner’s Office. Pursuant to California Public Resources Code Section 5097.98, if the remains are thought by the coroner to be Native American, the coroner will notify the NAHC, which will then notify the Most Likely Descendant. The City and FTA will work with the Most Likely Descendant on the respectful treatment and disposition of the remains. Further provisions of California Public Resources Code 5097.98 are to be followed as applicable.</p>	During Construction	Project Task Force, Contractor	Follow Guidelines for Inadvertent Discoveries Related to Human Remains
Geology	<p>GEO-1 The proposed Project shall be designed to accommodate fault rupture where present in accordance with applicable Caltrans guidelines, including MTD 20-8, Analysis of Ordinary Bridges that Cross Faults, dated January 2013; and MTD 20-10, Fault Rupture, dated January 2013, where any portion of a structure falls within an APEFZ, or where any portion of a structure falls within approximately 100 meters (330 feet) of well-mapped active faults, or within 300 meters (1,000 feet) of an un-zoned fault (not in an APEFZ) that is Holocene or younger in age.</p> <p>Stations and elevated structures for the ATS guideway shall be located to avoid or accommodate the fault rupture hazard where present with refinement of station and ATS guideway placement worked into final design as needed based on project specific geologic surveys, recommendations and criteria. Bridge type structures, such as the ATS guideway, shall be designed to take into account potential displacement from a fault offset, dynamic response due to ground shaking, and any other fault-induced hazards (e.g., creep) that may occur. The design shall be in accordance with the Caltrans MTD 20-8, which defines a method for determining the potential displacement at columns and abutments at fault crossings and designing the structure so it can slide without falling.</p>	Final Design	Project Task Force, Contractor	Follow Design Guidelines

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
Geology	<p>GEO-2 Prior to the start of construction, the location of the anticipated trend of the Townsite Fault shall be further defined via a phased investigation process to identify and locate active fault traces to support adjustments to the final design as needed. The phased investigation shall be prepared by registered professionals (i.e., California Professional Civil Engineer, Professional Engineering Geologist with experience in fault evaluations) and include a fault investigation conducted along the trace of the Townsite Fault to refine its location and assess its activity level where it crosses the ATS guideway and stations. The following methods shall be included in the investigation:</p> <ul style="list-style-type: none"> • Aerial photograph analysis; • Geophysical surveys (e.g., seismic reflection and/or seismic refraction) to refine the location of the Townsite fault and inform subsequent targeted fault hazard exploration, as necessary; • Targeted fault trenching based on the findings of additional geophysical studies to locate the potential Townsite Fault where it crosses the proposed ATS alignment; and • Exploratory drilling and sampling (e.g., hollow stem auger and cone penetration test borings), as necessary, if the trace of the Townsite fault cannot be adequately delineated across the proposed ATS alignment through the means of fault trenching. <p>Based on the results of these investigations, column placements and facility designs shall be adjusted to accommodate geologic conditions identified. Further, the facilities shall be designed in accordance with applicable Caltrans guidelines including MTD 20-8, Analysis of Ordinary Bridges that Cross Faults, and MTD 20-10, Fault Rupture. Stations/structures and columns/foundations shall be located to avoid the fault rupture hazard where present. Probabilistic procedures shall follow those outlined in the <i>Fault Rupture Hazard Evaluation</i> prepared for the proposed Project. If further study of the fault rupture is conducted, then procedures as outlined in CGS Note 4938 shall be followed.</p>	Pre-Construction and During Construction	Project Task Force, Contractor	Follow Design Guidelines
Geology	<p>GEO-3 The proposed ATS system facilities shall be designed in accordance with applicable Caltrans guidelines including Memo to Designers 20-8 (Analysis of Ordinary Bridges that Cross Faults) and 20-10 (Fault Rupture). The response spectra provided in the <i>Development of Seismic Design Criteria in Support of Draft EIR - Seismic Design Criteria</i> shall be considered applicable for both aerial guideway and ancillary structures within each segment of the alignment under the guideway and each station. Probabilistic procedures also shall follow those outlined in Caltrans Memo to Designers 20-10-Fault Rupture, dated January 2013.</p>	Final Design	Project Task Force, Contractor	Follow Design Guidelines
Hazards	<p>HAZ-1 The following features and actions address potential adverse effects associated with the use, handling and releases of hazardous materials:</p> <ul style="list-style-type: none"> • <u>Building Demolition Plan</u>. Prior to any demolition activities, the contractor shall conduct an evaluation of all buildings built prior to 1980 to be demolished to identify the presence of ACMs and LBP. Remediation will be required to be implemented in accordance with the recommendations found in the evaluations and to ensure ACMs and LBP are removed to levels established for public safety. • <u>Hazardous Materials Contingency Plan</u>. The contractor shall prepare a plan addressing the potential for discovery of undocumented or previously unidentified USTs, hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes encountered during construction. This plan shall address UST decommissioning, field screening and materials testing methods, contaminant management requirements, and health and safety requirements to ensure no exposure to hazards or hazardous materials occurs on site and to ensure any contaminated materials encountered during construction are removed to levels established for public safety • <u>Soil Management Plan</u>. A Soil Management Plan shall be prepared after final construction plans are prepared showing the lateral and vertical extent of soil excavation and establish soil reuse criteria, define a sampling plan for stockpiled materials, describe the disposition of materials that do not satisfy the reuse criteria, and specify guidelines for imported materials. Disturbed soils will be 	Pre-Construction and During Construction	Project Task Force, Contractor	Prepare and Implement Building Demolition Plan, Hazardous Materials Contingency Plan, Soil Management Plan, Health and Safety Plan, and Utility Work Coordination

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply																		
	<p>monitored for visual evidence of contamination (e.g., staining or discoloration). Soil will also be monitored for the presence of VOCs using appropriate field instruments such as organic vapor measurement with photoionization detectors or flame ionization detectors in accordance with South Coast Air Quality Management District Rule 1166. If the monitoring procedures indicate the possible presence of contaminated soil, a contaminated soil contingency plan will be implemented and will include procedures for segregation, sampling, and chemical analysis of soil. Contaminated soil will be profiled for disposal and will be transported to an appropriate hazardous or non-hazardous waste or recycling facility licensed to accept and treat the type of waste indicated by the profiling process. In addition, a contaminated soil contingency plan will be developed and in place during all construction activities. If these processes generate any contaminated groundwater that must be disposed of outside of the dewatering/National Pollutant Discharge Elimination System process, the groundwater will be profiled, manifested, hauled, and disposed of in the same manner.</p> <ul style="list-style-type: none"> • <u>Health and Safety Plan</u>. A Health and Safety Plan shall be developed to address the potential for exposure to the constituents of concern. • <u>Utility Relocation Work</u>. All Project utility relocations in the vicinity of Kelso Elementary School shall be designed and constructed to remain within the public right-of-way and not impact school property. Relocations shall be located further away from the school as feasible and designed and constructed to current standards to assure that they create no unacceptable hazards to the school. During Project construction, any open trenches and construction equipment shall be marked and barricaded such that they are not accessible by the students or create any potential hazard to school operations. Project utility relocations or cut overs that may require disruption to school normal utility services shall be scheduled to occur outside of normal school hours with advanced notification to the School District. 																					
Noise and Vibration	<p>NV-1 The exterior noise level generated by the ATS train, inclusive of all contributing noise sources, shall not exceed the levels specified in Section 2.2.1, Exterior Airborne Noise, ASCE 21-05 (American Society of Civil Engineers, Automated People Mover Standards - Part 2 Section 2.2.1, Exterior Airborne Noise, ASCE 21-05). The design of any barriers along the guideway designed to reduce noise shall be subject to the limits noted below.</p> <table border="1"> <thead> <tr> <th colspan="3">Exterior ATS Train Noise Limits</th> </tr> <tr> <th>Condition</th> <th>Maximum dBA Level</th> <th>Measurement Location</th> </tr> </thead> <tbody> <tr> <td>Maximum length train entering and leaving station</td> <td>76 (slow response)</td> <td>In the station, 5 feet from the platform edge and 5 feet above the station floor.</td> </tr> <tr> <td>Maximum length train stopped in station</td> <td>74 (slow response)</td> <td>In the station, 5 feet from the platform edge and 5 feet above the station floor, with vehicle doors and platform doors fully open.</td> </tr> <tr> <td>Maximum length train traveling along the entire guideway under any normal velocity, acceleration, and deceleration operating condition</td> <td>76 (fast response)</td> <td>At any point on a cylindrical envelope co-axial with, and 50 feet from, the centerline of each guideway lane (track), whichever is closer.</td> </tr> <tr> <td>Maximum length train traveling at 10 mph</td> <td>74 (fast response)</td> <td>At any point on a cylindrical envelope co-axial with, and 50 feet from, the centerline of each guideway lane (track).</td> </tr> </tbody> </table> <p><small>SOURCE: American Society of Civil Engineers, <i>Automated People Mover Standards - Part 2 Section 2.2.1, Exterior Airborne Noise, ASCE 21-0.</i></small></p>	Exterior ATS Train Noise Limits			Condition	Maximum dBA Level	Measurement Location	Maximum length train entering and leaving station	76 (slow response)	In the station, 5 feet from the platform edge and 5 feet above the station floor.	Maximum length train stopped in station	74 (slow response)	In the station, 5 feet from the platform edge and 5 feet above the station floor, with vehicle doors and platform doors fully open.	Maximum length train traveling along the entire guideway under any normal velocity, acceleration, and deceleration operating condition	76 (fast response)	At any point on a cylindrical envelope co-axial with, and 50 feet from, the centerline of each guideway lane (track), whichever is closer.	Maximum length train traveling at 10 mph	74 (fast response)	At any point on a cylindrical envelope co-axial with, and 50 feet from, the centerline of each guideway lane (track).	Final Design	Project Task Force, Contractor	Follow Design Guidelines
Exterior ATS Train Noise Limits																						
Condition	Maximum dBA Level	Measurement Location																				
Maximum length train entering and leaving station	76 (slow response)	In the station, 5 feet from the platform edge and 5 feet above the station floor.																				
Maximum length train stopped in station	74 (slow response)	In the station, 5 feet from the platform edge and 5 feet above the station floor, with vehicle doors and platform doors fully open.																				
Maximum length train traveling along the entire guideway under any normal velocity, acceleration, and deceleration operating condition	76 (fast response)	At any point on a cylindrical envelope co-axial with, and 50 feet from, the centerline of each guideway lane (track), whichever is closer.																				
Maximum length train traveling at 10 mph	74 (fast response)	At any point on a cylindrical envelope co-axial with, and 50 feet from, the centerline of each guideway lane (track).																				
Noise and Vibration	<p>NV-2 The City of Inglewood shall design and construct the MSF to reduce combined noise levels from all onsite equipment and activities to 62 dB L_{dn} or less, at all surrounding residential uses. To achieve this performance standard, during the architectural and engineering design, and prior to the issuance of any</p>	Final Design	Project Task Force, Contractor	Follow Design Guidelines																		

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<p>building permits for the MSF, the City or their contractor shall retain an acoustical consultant to evaluate the design and provide written recommendations, as necessary, to reduce noise from all onsite equipment and activities. Such recommendations may include, but are not limited to, changes in site layout or equipment locations; sound power limits or specifications; rooftop parapet walls; acoustical absorption, louvers, screens, or enclosures; intake and exhaust silencers; or administrative controls (such as restricting certain activities to daytime hours). The recommendations shall be incorporated into the proposed Project plans prior to construction.</p>			
<p>Noise and Vibration</p>	<p>NV-3 A Construction Noise Control Plan shall be developed in coordination with a certified acoustical/vibration consultant and shall be approved by the City’s Director of Public Works prior to construction. The Plan shall include measures demonstrating that construction noise levels will be below FTA’s General Assessment Construction Noise Criteria. The following construction noise reduction measures shall be incorporated into the Plan:</p> <ul style="list-style-type: none"> • Install temporary noise barriers that reduce sound at receptors; • For any idling that is expected to take longer than five minutes, the engine shall be shut off; • All equipment shall be equipped with optimal muffler systems; • Use solar, battery powered, or hybrid equipment whenever practical; • Locate staging areas as far away from sensitive receptors as feasible; • Locate stationary noise sources as far away from sensitive receptors as feasible; • Enclose stationary noise sources, such as diesel-or gasoline-powered generators, with acoustical barriers where necessary and required; • If stationary equipment cannot be enclosed within a shed or barrier, such equipment must be muffled and located at least 100 feet from sensitive land uses (e.g., residences, schools, childcare centers, hospitals, parks, or similar uses), whenever possible. • Pole power shall be utilized to the maximum extent feasible in lieu of generators. • Impact tools (i.e., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust and external jackets shall be used where feasible to lower noise levels. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible. Additionally, use of “quiet” pile driving technology (such as auger displacement installation), where feasible in consideration of geotechnical and structural requirements and conditions shall be considered. • Staging of construction material deliveries behind fencing to minimize noise emitting from idling vehicles. • On site-signage reminding workers to minimize noise generation. • When not in use or being staged, heavy equipment shall be located as far as practicable from sensitive receptors. • For project foundations, consider the use of drilled piles or sonic pile drivers or vibratory pile drivers instead of traditional impact pile drivers, as permitted by geological conditions. • Sequence noisy activities to occur during the same general time period during daytime hours to the extent practical. • Select quieter demolition methods where appropriate and feasible such that demolition activities can remain within the project specified noise levels. • Unless deemed infeasible for a particular construction activity, the Contractor shall utilize rubber tire earth moving equipment in lieu of track mounted earth moving equipment. • Construction material deliveries shall take place within designated construction staging areas as far from residential sites as practical to minimize noise impacts 	<p>Pre-Construction and During Construction</p>	<p>Project Task Force, Contractor</p>	<p>Prepare and Implement Construction Noise Control Plan</p>

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> • Provide signage at active construction sites and staging areas reminding workers, equipment operators and delivery vehicles to minimize noise levels to the extent possible. • Rumble strips or signage shall be provided at roadway access points into contractor laydown and staging areas to slow construction vehicles and limit vehicle noise. • Coordinate with the Inglewood Unified School District administrators to avoid disruptive noise during school hours including scheduling heavy equipment such as cranes, haul trucks, concrete trucks, concrete pumps, pneumatic equipment, earth moving vehicles or similar to operate outside of school hours. The City shall require that the Project's construction noise during school hours would be limited to 5 dBA Leq 1-hour above the measured ambient noise levels at Kelso School property line as identified in the RDEIR. Activities that would exceed this threshold shall be scheduled to occur outside of normal school hours or mitigated with specific mitigation measures such as temporary sound walls, sound blankets, or other sound-attenuating devices. The City shall monitor the Project's construction noise levels during school hours to assure compliance. As requested by the District, monthly noise monitoring reports on noise levels during school hours at Kelso School will be provided to the District. <p>In order to ensure that construction noise levels will be below the established standards, the following shall be incorporated into the Plan:</p> <ul style="list-style-type: none"> • A monitoring plan shall be implemented during demolition and construction activities. Warning thresholds shall be defined that are 5 dBA below the specified noise limits to allow sufficient time for the Contractor to take actions to reduce noise. A monitoring record that documents all alarms and actions taken to comply with these measures shall be provided to the City upon request. • In the event the warning level (dBA) is exceeded, construction activities shall be temporarily halted in the vicinity of the area where the exceedance occurs. The source of the noise exceeding the warning level shall be identified followed by actions to be implemented to reduce noise levels below the established standards. Noise measurements shall be gathered after actions are taken to verify noise levels are below the warning level before construction activities restart. The following are examples of actions that can be taken to reduce construction noise levels: <ul style="list-style-type: none"> ○ Halting/staggering concurrent construction activities in certain locations; ○ Reducing the speed or intensity of the heavy-duty construction equipment being operated simultaneously; ○ Operating equipment at the lowest possible power levels; ○ Modifying equipment, such as dampening of metal surfaces or other redesign to minimize metal-to-metal impacts. 			
Noise and Vibration	<p>NV-4 Prior to the issuance of any demolition or construction permit for each phase of the proposed Project, a Construction Vibration Reduction Plan shall be prepared to minimize construction vibration at nearby sensitive receptors from vibration created by construction activities. The Plan shall be developed in coordination with a certified acoustical/vibration consultant and shall be approved by the City's Director of Public Works. The Plan shall include but not be limited to the following elements:</p> <ul style="list-style-type: none"> • A Pre-Demolition and Construction Plan that includes but is not limited to: <ul style="list-style-type: none"> ○ Photos of current conditions of buildings and structures that could be damaged from construction activities. This crack survey shall include photos of existing cracks and other material conditions present on or at the surveyed buildings. Images of interior conditions shall be included if possible. Photos in the report shall be labelled in detail and dated. ○ Identify representative cracks in the walls of existing buildings, if any, and install crack gauges on such walls of the buildings to measure changes in existing cracks during proposed Project activities. 	Pre-Construction and During Construction	Project Task Force, Contractor	Prepare and Implement Construction Vibration Reduction Plan

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> ○ Crack gauges shall be installed on multiple representative cracks, particularly on sides of the building facing the proposed Project. ○ Determine the number and placement of vibration sensors at the affected buildings in consultation with a qualified architect. The number of units and the locations of these sensors shall take into account proposed demolition and construction activities to ensure that adequate measurements can be taken illustrating vibration levels during the course of the proposed Project, and if/when levels exceed the established threshold. ○ A line and grade pre-construction survey at the affected buildings shall be conducted. ● A Vibration Plan During Demolition and Construction that includes the following: <ul style="list-style-type: none"> ○ Regularly inspect and photograph crack gauges, maintaining records of these inspections to be included in postconstruction reporting. Gauges shall be inspected every two weeks, or more frequently during periods of active project actions in close proximity to crack monitors. ○ The vibration monitoring system shall measure and continuously store the peak particle velocity (PPV) in inches/second. Vibration data shall be stored on a one-second interval. The system shall also be programmed for two preset velocity levels: a regulatory level that represents when PPV levels would exceed the FTA's threshold of significance for a building given its conditions, and a warning level that is 0.05 inch/second (PPV) less than the regulatory level. The system shall also provide real-time alert when the vibration levels exceed either of the two preset levels. ○ In the event the warning level (PPV) is triggered, the contractor shall identify the source of vibration impacts and establish steps to reduce the vibration levels, including but not limited to halting or staggering concurrent activities and using lower vibratory techniques. ○ In the event the regulatory level (PPV) is triggered, halt the construction activities in the vicinity of the trigger area and visually inspect the building for any damage. Results of the inspection must be logged. Identify the source of vibration generation and provide steps to reduce the vibration level. Vibration measurement shall be made with the new construction method to verify that the vibration level is below the warning level (PPV). Construction activities may then restart. ○ In the event work occurs in the proximity of identified historic uses, the system shall be programmed for two preset velocity levels: a regulatory level that represents when PPV levels would exceed the FTA threshold of significance 0.12 inch/second for a building given its conditions, and a warning level that is 0.012 inch/second (PPV) less than the regulatory level. ○ Collect vibration data from receptors and report vibration levels to the Joint Powers Authority and/or the City on a daily basis. The reports shall include annotations regarding project activities as necessary to explain changes in vibration levels. ● Post-Construction Reporting and Repairs: <ul style="list-style-type: none"> ○ Provide a report to the Joint Powers Authority and/or the City regarding crack and vibration monitoring conducted during demolition and construction. In addition to a narrative summary of the monitoring activities and their findings, this report shall include photographs illustrating the postconstruction state of cracks and material conditions that were presented in the pre-construction assessment report, along with images of other relevant conditions showing the impact, or lack of impact, of project activities. The photographs shall sufficiently illustrate damage, if any, caused by the proposed Project and/or show how the proposed Project did not cause physical damage to the buildings. The report shall include analysis of vibration data related to project activities, as well as summarize efforts undertaken to avoid vibration impacts. Finally, a postconstruction line and grade survey shall also be included in this report. 			

Environmental Resource	Avoidance, Minimization, and Mitigation Measures	Timing	Responsible Party	Action to Comply
	<ul style="list-style-type: none"> ○ Perform repairs to buildings if damage is caused by vibration or movement during the demolition and/or construction activities. Repairs may be necessary to address, for example, cracks that expanded as a result of the proposed Project, physical damage visible in post-construction assessment, or holes or connection points that were needed for shoring or stabilization. Repairs shall be directly related to project impacts and will not apply to general rehabilitation or restoration activities of the buildings. ● To minimize the risk of potential structural and building damage: <ul style="list-style-type: none"> ○ Limit the location of pile driving and vibratory roller activity to not be within 55 feet and 30 feet of the nearest off-site sensitive receptor, respectively. ○ Limit the number of jackhammers operating simultaneously to one piece operating within 45 feet of off-site sensitive receptors. ○ In the event impact pile driving is required, equipment shall only be used from the hours of 7:00 AM to 7:00 PM. If feasible, pile driving should use alternative technology such as vibration or hydraulic insertion. ● To minimize the risk of related to human annoyance: <ul style="list-style-type: none"> ○ Limit the location of pile driving to 310 feet of off-site vibration sensitive receptors. ○ Limit the location of vibratory roller to 150 feet of off-site vibration sensitive receptors. ○ Limit the location of large bulldozer to 85 feet of off-site vibration sensitive receptors. ○ Limit the location of caisson drilling to 85 feet of off-site vibration sensitive receptors. ○ Limit the location of loaded trucks to 75 feet of off-site vibration sensitive receptors. ○ Limit the location of jackhammers to 45 feet of off-site vibration sensitive receptors. ○ Limit the location of small bulldozer to 25 feet of off-site vibration sensitive receptors. 			
Utilities	<p>UT-1 Prior to the award of the DBFOM contract, and start of any demolition or construction activities, the City or DBFOM shall be responsible for identifying the locations of existing utilities potentially affected by the proposed Project. This shall include coordinating with all existing utility providers for wet and dry utilities (water, sewer, gas, electric, and telecommunications) to obtain documentation of existing utility locations. Field verification (i.e., potholing and other methods as appropriate) shall be conducted to document the locations of all utilities within 20 feet of the guideway and station foundations. Based on the information from the field investigations, the DBFOM contractor shall be responsible for confirming the location of existing utilities and coordinating with the appropriate utility owners/operators to determine specific set back requirements for each utility line and the need for any stabilization for protection in place or relocation measures.</p>	Pre-Construction and During Construction	Project Task Force, Contractor	Coordinate with Utility Companies
Utilities	<p>UT-2 Prior to the award of the DBFOM contract, and start of construction, the City shall contact SCE and request an updated system Distribution Study to determine the amount of load that SCE could accommodate and required infrastructure upgrades in order to meet the recommended full redundancy design. Should SCE determine that additional system upgrades are required, such upgrades shall be the responsibility of the DBFOM contractor and/or the City to complete (including design and any additional environmental clearance), subject to the review and approval of SCE and the City, as applicable.</p>	Pre-Construction and During Construction	Project Task Force, Contractor	Coordinate with Utility Companies